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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/419,749	10/16/1999	TAD A. DEFFLER	063170.6308	1735
5073	7590	05/01/2008	EXAMINER	
BAKER BOTTS L.L.P.			COLBERT, ELLA	
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DALLAS, TX 75201-2980				
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/419,749	Applicant(s) DEFFLER ET AL.	
	Examiner Ella Colbert	Art Unit 3696	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/30/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-4, 6 and 9-21 are pending. Claims 1, 3, 9, 10, 14, and 18 have been amended in this communication filed 02/01/08 entered as RCE.
2. The IDS filed 11/30/07 has been considered and entered.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/01/08 has been entered.

Claim Objections

Claim 3 is objected to because of the following informalities: Claim 3 contained a "wherein" clause and prior to the "wherein" clause after "predefined macro language; and"". There should be a comma (,) after "predefined macro language," prior to the "wherein" clause. The "and" should be after "macro language;" and before "a registry of keywords ..., ..., ...;". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 4 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is vague and unclear in claim 1 what or who is "maintaining a predefined macro language", retrieving from the registry of keywords" and "executing the executable code". Do Applicants' mean a computer or a user is performing these steps? Claims 2, 4, and 6 are also rejected because of their dependency from a rejected base claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander Sakharov, "Macro Processing in High-Level Languages", hereafter Sakharov alone.

With respect to claim 1, Sakharov discloses, maintaining a predefined macro language comprising a plurality of keywords and a plurality of associated commands for execution (pg. 61, line 3-pg. 63, line 5); parsing a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language (pg. 65, para's 1-3); executing the executable code retrieved from the registry to run the extended macro command associated with the new keyword in the macro language expression without recompiling the macro language, the executable code associated with the new keyword not

included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone (pg. 65, para's 4-9). Sakharov failed to disclose, retrieving, from a registry of keywords and associated executable codes, an executable code associated with the new keyword identified in the macro language expression, the executable code corresponding to a procedure not performed by the execution of the predefined macro language. However, this step is well known in the art and performed at runtime and it is not a recompilation but it is a copy as many times as it (the macro) is called. There are three different types of macros, such as preprocessor, compiler, and runtime. A preprocessor macro is defined as for example, the C preprocessor is a macro processor that is used automatically by the C compiler to transform the program before actual compilation; compiler macros are defined as controlling the state of the macro with compiler command options; and a runtime macro is defined as tells the runtime intercept how to identify the construct to converted differently and how to render or convert it to the alternative result which usually results in runtime macros that are executed by conversion code at runtime. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a registry of keywords and an associated executable code to retrieve and to execute because it is well known in the art that the C language itself has a registry of 33 keywords with the keywords being used in the source code and compiling of the macro language.

With respect to claim 2, Sakharov discloses, extending the registry of keywords and associated executable codes by inserting a new keyword representing a new extended macro command and a new executable code associated with the new keyword (pg. 60, para's 4-pg. 61, line 2).

With respect to claim 9, this independent claim is rejected on grounds corresponding to the reason given for rejected independent claim 1. Applicants' claim 9 has a computer-readable medium encoded with logic operable, when executed on a computer processor, to perform the steps of determining, based on a predetermined syntax of the macro language with steps corresponding to the method of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander Sakharov, "Macro Processing in High-Level Languages", hereafter Sakharov, (US 5,295,059) Brooks et al, hereafter Brooks, in view of (US 4,931,928) Greenfeld and further in view of M. Douglas McLroy, "Macro Instruction Extensions of Compiler language", hereafter McLroy and further in view of (US 5,737,592) Nguyen et al, hereafter Nguyen.

With respect to claims 3, Sakharov failed to disclose, a macro handler operable to maintain a predefined macro language comprising a plurality of keywords and a plurality of associated commands for execution. Brooks discloses, a macro handler operable to maintain a predefined macro language comprising a plurality of keywords and a plurality of associated commands for execution (col. 8, lines 3-50).

Sakharov failed to disclose, a parser operable to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language. Greenfeld discloses, a parser operable to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language (col. 8, line 1-col. 9, line 34, fig. 3 and fig. 4).

Sakharov failed to disclose, a registry of keywords and associated executable codes including one or more keywords and one or more executable codes that are not included in the predefined macro language, each keyword being associated with a respective one of the executable codes, each executable code corresponding to a procedure not performed by the execution of the predefined macro language executable code corresponding to a procedure not performed by the execution of the predefined macro language; and wherein the macro handler is further operable to receive the new keyword from the parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with the new keyword identified within the macro language expression, and execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language, the executable code associated with the new keyword not included in the performance of a procedure not performed by execution of the predefined macro language alone

. Nguyen discloses, a registry of keywords and associated executable codes including one or more keywords and one or more executable codes that are not

included in the predefined macro language, each keyword being associated with a respective one of the executable codes, each executable code corresponding to a procedure not performed by the execution of the predefined macro language executable code corresponding to a procedure not performed by the execution of the predefined macro language (col. 6, lines 7-14). Sakharov failed to disclose wherein the macro handler is further operable to receive the new keyword from the parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with the new keyword identified within the macro language expression, and execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language, the executable code associated with the new keyword not included in the performance of a procedure not performed by execution of the predefined macro language alone. Brooks discloses, wherein the macro handler is further operable to receive the new keyword from the parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with the new keyword identified within the macro language expression, and execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language, the executable code associated with the new keyword not included in the performance of a procedure not performed by execution of the predefined macro language alone (col. 8, lines 3-68 and col. 9, lines 1-60). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify in Sakharov the teachings

of Brooks because such a modification is well known in the art and would enhance Sakharov's extended keywords with the parser receiving the keyword first, then parsing the expression and the macro handler in response saving the previous contents of the processor registers (keywords) during execution of the main program with the user selecting the functions and submitting the macro command to run the code associated with the keywords with a prefix symbol.

With respect to claim 4, Sakharov failed to disclose, a registry of keywords and associated executable codes is operable to be extended to include one or more new executable codes, each new keyword being associated with a respective one of the new executable codes. Nguyen discloses, a keyword registry of keywords and associated executable codes is operable to be extended to include one or more new executable codes, each new keyword being associated with a respective one of the new executable codes (col. 6, lines 7-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify in Sakharov the teachings of Nguyen because such a modification would allow Sakharov to have 33 keywords that can be used in the source code and for compiling the macro language.

With respect to claim 6, Sakharov discloses, wherein the executable code includes machine operable instructions (pg. 60, para's 2-7). It is inherent that a machine is involved in this process.

Claim 10. Sakharov failed to disclose, The method of Claim 1, wherein identifying the new keyword in the macro language expression comprises recognizing one or more tokens in the macro language expression, and the method further comprises

determining based on the predefined macro language that each token indicates the presence of a new macro command associated with the new keyword that is not included in the predefined macro language. McILroy discloses, The method of Claim 1, wherein identifying the new keyword in the macro language expression comprises recognizing one or more tokens in the macro language expression, and the method further comprises determining based on the predefined macro language that each token indicates the presence of a new macro command associated with the new keyword that is not included in the predefined macro language (page 215, col. 2 –page 216, col. 1, 1.5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify in Sakharov with the teachings of McILroy because such a modification would allow Sakharov to have a macro expression with tokens and keywords.

Claims 11, 15, and 19. Sakharov failed to disclose, further comprising breaking the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command. McILroy discloses, further comprising breaking the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command (page 216, col. 2, line 1- no. 2).

Claims 12, 16, and 20. Sakharov failed to disclose, wherein the registry of keywords comprises a table of keywords and associated macro commands. Nguyen discloses a relational database with keywords and associated macro commands (col. 5, lines 1-23).

Claims 13, 17, and 21. Sakharov failed to disclose, wherein the registry of keywords comprises a database of keywords and associated macro commands. Nguyen discloses, wherein the registry of keywords comprises a database of keywords and associated macro commands (col. 8, lines 1-57).

Claims 14 and 18. Sakharov failed to disclose, wherein when identifying the new keyword in the macro language expression the parser is operable to: recognize one or more tokens in the macro language expression; and determine based on the predefined macro language that each token indicates the presence of a new macro command associated with the new keyword that is not included in the predefined macro language. Greenfield discloses, wherein when identifying the new keyword in the macro language expression the parser is operable to: recognize one or more tokens in the macro language expression; and determine based on the predefined macro language that each token indicates the presence of a new macro command associated with the new keyword that is not included in the predefined macro language (col. 8, lines 1-38).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Velissaropoulos et al (US 5,721,895) disclosed a data transmission dictionary and retrieving hierarchical data.

Garloff et al (US 5,699,310) disclosed object-oriented source code.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Monday, Tuesday, and Thursday, 5:30AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dixon Thomas can be reached on 571-272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ella Colbert/
Primary Examiner, Art Unit 3696

April 28, 2008